

## EXHIBIT 4

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3	OAKLAND DIVISION	3	MUKARRAM ATTARI, Ph.D.	
4		4	EXAMINATION BY MR. SPEAR	6
5		5		
6	IN RE MATTER OF: )	6		
7	)	7		
8	7 RIPPLE LABS INC. LITIGATION )	8	-oOo-	
9	) CASE NO. 4:18-cv-06753-PJH	9		
10		10		
11	*** CONFIDENTIAL ***	11		
12		12	Instructed Not to Answer	
13	VIDEOTAPED DEPOSITION OF MUKARRAM ATTARI, Ph.D.	13	Page Line	
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20	Stenographically Reported by:	20		
21	HEATHER J. BAUTISTA, CSR, CRR, RPR, CLR	21		
22	Realtime Systems Administrator	22		
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	Job No.: 2023-884741			
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1	VIDEOTAPED DEPOSITION of MUKARRAM ATTARI,	1	INDEX OF EXHIBITS	
2	Ph.D., taken before Heather J. Bautista, CSR No. 11600,	2	Exhibit No. Description Page	
3	a Certified Shorthand Reporter for the state of	3	Exhibit 66 2/3/2023 Expert Report of	7
4	California, with principal office in the county of Santa		Dr. Mukarram Attari	
5	Clara, commencing on Wednesday, March 8, 2023,	4		
6	10:21 a.m., remotely via videoconference.	5	Exhibit 67 Defendants' Responses to Lead	30
7		6	Plaintiff's Deposition of	
8	APPEARANCES OF COUNSEL:	7	Dr. Mukarram Attari with Request for	
9	For Lead Plaintiff BRADLEY SOSTACK:	8	Documents	
10	Susman Godfrey LLP	9		
11	BY: NICHOLAS N. SPEAR, ESQ.	10	Exhibit 68 CRA profile page for	34
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	ALSO PRESENT: Drayton Everson, Videographer			
	Deborah McCrimmon, ESQ., (Ripple in-house			
	counsel)			

<p style="text-align: right;">5</p> <p>1 Wednesday, March 8, 2023 2 10:21 a.m. 3 --oOo-- 4 THE VIDEOGRAPHER: We are now on the record on 5 March 8th, 2023, at approximately 10:21 a.m. Pacific 6 Time for the remote video deposition of Dr. Mukarram 7 Attari in the matter of In Re: Ripple Labs, Inc., 8 litigation. 9 My name is Drayton Everson, and I'm the 10 videographer on behalf of Lexitas. 11 Will counsel please introduce themselves for 12 the record and who they represent, beginning with the 13 party noticing this proceeding. 14 MR. SPEAR: Good morning. Nick Spear, 15 Susman Godfrey, for Lead Plaintiff Bradley Sostack. 16 MR. MICHAELSON: Andrew Michaelson from 17 King &amp; Spalding. I'm representing Defendants in this 18 action, and I'm joined by my co-counsel, Luke Roniger, 19 also King &amp; Spalding, and Deborah McCrimmon from Ripple. 20 THE VIDEOGRAPHER: Thank you, Counsel. 21 Will our court reporter please swear in the 22 witness. 23 THE STENOGRAPHER: Good morning. 24 My name is Heather Bautista, and I'm a 25 certified stenographer licensed by the State of</p>	<p style="text-align: right;">7</p> <p>1 (Exhibit 66 was marked for identification.) 2 Q. (By Mr. Spear) This, Dr. Attari, is your 3 expert report. Exhibit 66 was filed as Exhibit 52 to 4 Defendants' Motion for Opposition to Class 5 Certification. 6 Is that the version you are looking at? 7 A. Yes. 8 Q. Okay. 9 So if you look on Page 2 of that document, it 10 says "Expert Report of Dr. Mukarram Attari, February 11 3rd, 2023." Is this your expert report in this matter? 12 A. Yes. 13 Q. You have been retained by counsel for the 14 defendants as an expert in this case; correct? 15 A. Yes. 16 Q. Did anyone assist you in writing this report? 17 A. I drafted the -- 18 (Stenographer clarification.) 19 THE WITNESS: I drafted the initial version, 20 and a team at CRA, that's C-R-A, assisted me with the 21 analysis and the -- and refining the drafts. 22 Q. (By Mr. Spear) For the benefit of the court 23 reporter and the record, CRA stands for Charles Rivers 24 Associate; correct -- Associates; correct? 25 A. Yes.</p>
<p style="text-align: right;">6</p> <p>1 California. My license number is 11600. 2 This deposition and any transcript produced 3 therefrom will be handled pursuant to Federal Rule of 4 Civil Procedure Section 30. 5 As the deposition officer, I will be retaining 6 my duties and responsibilities under the Code. 7 Please raise your right hand so I can swear you 8 in. 9 MUKARRAM ATTARI, Ph.D., 10 having been first duly sworn, was examined and testified 11 as follows: 12 THE WITNESS: I do. 13 THE STENOGRAPHER: Thank you. 14 Please state your full name for the record. 15 THE WITNESS: Mukarram, M-u-k-a-r-r-a-m, 16 Attari; that's A, -t, as in "Texas," -t, as in "Texas," 17 -a-r-i. 18 THE STENOGRAPHER: Thank you. 19 Counsel, you can begin. 20 DIRECT EXAMINATION 21 BY MR. SPEAR: 22 Q. Good morning, Dr. Attari. 23 What city and state do you currently live in? 24 A. Oakland, California. 25 MR. SPEAR: So I'm going to mark Exhibit 66.</p>	<p style="text-align: right;">8</p> <p>1 Q. So going forward, when I say "CRA" or you say 2 "CRA" today, we'll all understand that to be Charles 3 Rivers Associates; fair enough? 4 A. Fair enough. 5 Q. Who helped you draft or edit or write this 6 report or do the analysis? 7 MR. MICHAELSON: Objection. Form. 8 THE WITNESS: It was a number of people. The 9 two of them that come to mind as I'm sitting here is Sam 10 Lynch -- S-a-m, L-y-n-c-h -- and Swati Kanoria. That's 11 S-w-a-t, as in "Texas," -i, K-a-n-o-r-i-a. 12 Q. (By Mr. Spear) What is your billing rate for 13 this matter, Dr. Attari? 14 A. Stated in the report, it's \$1,275. 15 Q. And for the two people you mentioned that you 16 recall working on the report with you, what is their 17 billing rates? 18 A. I do not know. 19 Q. About how long did you spend putting together 20 this report? 21 A. I believe we started work sometime in December 22 and were done by February 3rd. 23 Q. Do you know how many hours you spent, roughly, 24 working on this report? 25 A. Not sitting here.</p>

<p style="text-align: right;">125</p> <p>1 losses, Andrew. I'm talking purely about gains and                  2 losses, which is literally the subject of Dr. Attari's                  3 opinion.                  4 Again, if you guys -- if you guys want -- if                  5 you guys want to say right now that Dr. Attari is not                  6 offering an opinion that there is -- or, you know, is                  7 not offering an opinion about whether there's a common                  8 methodology to calculate gains or losses, we can move                  9 on. But I'm -- I don't think it's unfair to say, "Can                  10 you calculate gains or losses using the same formula for                  11 each person, even if the inputs are different?" It's a                  12 simple question.                  13 So you -- you tell me. If you guys -- if you                  14 want to say on the record that he's not offering an                  15 opinion at all about the formula used to calculate gains                  16 or losses or whether it's common or not common, we can                  17 move on. But if you can't offer me that, then I got to                  18 keep asking my questions.                  19 MR. MICHAELSON: Look. A calculation of gain                  20 or loss is a part of his -- of his opinion. Where                  21 you're going beyond that is this concept of applying one                  22 methodology across a class, and I think it's because                  23 you've covered this terrain multiple times, spent a lot                  24 of time on it, and what you've -- what you've -- you                  25 know, what you get are questions like there are multiple</p>	<p style="text-align: right;">127</p> <p>1 appropriate method for calculating gains or losses for                  2 class members?                  3 MR. MICHAELSON: Objection. Form.                  4 THE WITNESS: Am I saying there is one correct                  5 method? No.                  6 Q. (By Mr. Spear) Are you saying that you would                  7 need to use different methods depending on the class                  8 member? Is that an opinion you're offering?                  9 A. I'm saying that there are different methods --                  10 approaches to calculating gains and losses that give you                  11 different answers.                  12 Q. Are you offering an opinion, Dr. Attari, that                  13 it is appropriate to use different methods for                  14 calculating gains and losses depending on the XRP                  15 purchaser?                  16 MR. MICHAELSON: Objection. Form.                  17 THE WITNESS: Can you say that again, please.                  18 Q. (By Mr. Spear) Sure.                  19 Are you offering an opinion that you would need                  20 to apply different approaches to determining gains and                  21 losses for different XRP purchasers?                  22 MR. MICHAELSON: Objection. Form.                  23 THE WITNESS: I'm saying that there are                  24 different approaches to calculating gains and losses                  25 that will give you different answers.</p>
<p style="text-align: right;">126</p> <p>1 ways to calculate it; you get different answers; it may                  2 not make sense, depending on the purchaser. You've --                  3 you've already covered this. And that's -- and it's not                  4 his opinion -- he's not expressing an opinion on -- on                  5 whether one -- one approach would make sense for all                  6 purchasers. It's not -- that's outside the scope.                  7 I think, you know, if you want to keep asking                  8 about this, keep asking, and I'll keep saying "asked and                  9 answered," and we'll see, you know, where it goes.                  10 You're coming back to this. You've spent a lot                  11 of time on it already.                  12 MR. SPEAR: I mean, that's my -- that's my                  13 choice. I've not been inefficient today. I'm allowed                  14 to ask my questions. We can just keep going.                  15 Q. (By Mr. Spear) Dr. Attari, are you ready?                  16 A. Yes.                  17 Q. Are you offering an opinion, Dr. Attari, about                  18 the appropriate method for calculating gains or losses                  19 for class members?                  20 MR. MICHAELSON: Objection.                  21 THE WITNESS: I'm saying that there are                  22 multiple approaches to calculating gains or losses, and                  23 those approaches would give you different answers.                  24 Q. (By Mr. Spear) Not my question, Dr. Attari.                  25 Are you offering an opinion about the</p>	<p style="text-align: right;">128</p> <p>1 Q. (By Mr. Spear) I understand that.                  2 Are you saying that you would need to apply                  3 different approaches to determining gains and losses to                  4 different class members?                  5 MR. MICHAELSON: Objection. Form. Scope.                  6 Asked and answered.                  7 THE WITNESS: I don't understand the question.                  8 Q. (By Mr. Spear) Are you testifying that to                  9 determine the gains and losses for an individual class                  10 member, you might need to apply a different approach to                  11 different class members?                  12 MR. MICHAELSON: Same objections.                  13 THE WITNESS: You -- if the approach to -- the                  14 approach to computing gains or losses will depend on the                  15 currencies the purchaser used or purchase and sale, and                  16 it will be more complicated for people who purchase and                  17 sold in different currencies, and the gain or losses                  18 will be -- should be computed in -- in whatever                  19 currencies they used to purchase and sell.                  20 So, yes, I mean, you know, across all possible                  21 purchasers of XRP, you cannot use the same method. You                  22 will not be able to use the same method.                  23 Q. (By Mr. Spear) So it's your testimony that for                  24 some purchasers, you have to calculate gains or losses                  25 in, say, Bitcoin and others in U.S. dollars; that's</p>



<p style="text-align: right;">129</p> <p>1 your -- that's your testimony?</p> <p>2 MR. MICHAELSON: Same objections.</p> <p>3 THE WITNESS: That is one dimension of the</p> <p>4 difference, yes.</p> <p>5 Q. (By Mr. Spear) And what is your basis for</p> <p>6 saying that you would calculate some gains or losses for</p> <p>7 some class members in U.S. dollars and some gains or</p> <p>8 losses in Bitcoin for other class members?</p> <p>9 MR. MICHAELSON: Same objections. Form.</p> <p>10 Scope.</p> <p>11 THE WITNESS: Well, it will depend on the</p> <p>12 currencies that they purchased and sold in. So if there</p> <p>13 are people sitting in Korea, for example, buying and</p> <p>14 selling in Korean won, then computing gains or losses</p> <p>15 for them in U.S. dollars is meaningless economically.</p> <p>16 Q. (By Mr. Spear) Even if we're in a U.S. court?</p> <p>17 MR. MICHAELSON: Objection.</p> <p>18 THE WITNESS: So I think there you're asking me</p> <p>19 a legal question, and you asked me that earlier, too,</p> <p>20 and I -- I don't know the answer to that.</p> <p>21 Q. (By Mr. Spear) So are you offering an opinion</p> <p>22 about whether you should not calculate gains or</p> <p>23 losses -- strike that.</p> <p>24 Let's -- is it ever possible to calculate gains</p> <p>25 or losses on an aggregate basis?</p>	<p style="text-align: right;">131</p> <p>1 losses on an aggregate basis?</p> <p>2 MR. MICHAELSON: Objection. Form.</p> <p>3 THE WITNESS: Can I think of a scenario</p> <p>4 where -- sorry. Say that again.</p> <p>5 Q. (By Mr. Spear) Why is it relevant that it is</p> <p>6 not possible to evaluate gains or losses on an aggregate</p> <p>7 basis?</p> <p>8 A. Well, in -- in this case, it's talking about</p> <p>9 all possible -- aggregate as in all possible purchasers</p> <p>10 and sellers; right? I mean, if you -- if you look at --</p> <p>11 you know, if you look at -- at certain markets, for</p> <p>12 example, and you've been asking a lot about securities</p> <p>13 markets, so you might have the market capitalization of</p> <p>14 a company that changes from day to day, and that tells</p> <p>15 you -- that gives you one measure of gain or loss to</p> <p>16 investors in that company on an aggregate basis.</p> <p>17 But that's different than, kind of, all</p> <p>18 purchasers over a period -- long period of time</p> <p>19 calculating gains or losses for them on an aggregate</p> <p>20 basis.</p> <p>21 Q. Let's look at Paragraph 24 of your opinion.</p> <p>22 This is on Page 12.</p> <p>23 A. Yes.</p> <p>24 Q. You say, at the end of that paragraph,</p> <p>25 "However, if no information is available on purchase and</p>
<p style="text-align: right;">130</p> <p>1 MR. MICHAELSON: Objection. Form.</p> <p>2 THE WITNESS: I don't understand the question.</p> <p>3 Q. (By Mr. Spear) You said it is not possible, in</p> <p>4 Paragraph 41, to evaluate gain or loss on an aggregate</p> <p>5 basis. Do you see that?</p> <p>6 A. It says, "These substantial variations show</p> <p>7 that the assessment of gain or loss should account for</p> <p>8 purchase-by-purchase inputs on an individualized basis</p> <p>9 and, accordingly, that it's not possible to evaluate</p> <p>10 gain or loss on an aggregate basis."</p> <p>11 Q. In securities litigation, is it ever possible</p> <p>12 to calculate gain or loss on an aggregate basis?</p> <p>13 MR. MICHAELSON: Objection. Form.</p> <p>14 THE WITNESS: In securities cases, you're</p> <p>15 typically not calculating gains or losses. You're</p> <p>16 calculating damages, which is something different, which</p> <p>17 has to do with inflation and all those other inputs --</p> <p>18 Q. (By Mr. Spear) You say here --</p> <p>19 A. -- specific to the --</p> <p>20 Q. Go ahead.</p> <p>21 A. -- the case facts.</p> <p>22 Q. You say here, "It is not possible to evaluate</p> <p>23 gains or losses on an aggregate basis." I'm just asking</p> <p>24 the simple question of: Can you think of a scenario</p> <p>25 where it would ever be possible to evaluate gains or</p>	<p style="text-align: right;">132</p> <p>1 sale prices and the currency used to purchase or sell</p> <p>2 XRP, it is not possible to determine whether a purchaser</p> <p>3 earned a gain or incurred a loss, even in this simple</p> <p>4 situation."</p> <p>5 Do you see that?</p> <p>6 A. Yes.</p> <p>7 Q. If you had that information, you would be able</p> <p>8 to determine whether a purchaser earned a gain or</p> <p>9 incurred a loss; correct?</p> <p>10 A. In the simple situation, yes.</p> <p>11 Q. And how would you determine whether that person</p> <p>12 earned a gain or incurred a loss?</p> <p>13 A. Well, so this is where they purchased and sold</p> <p>14 in the -- in the same currency. So then you could</p> <p>15 subtract the purchase price from the sale price, and</p> <p>16 you'd have the gain or loss in that currency.</p> <p>17 Q. So let's go to Paragraph 25. You say, "In</p> <p>18 other words," this is the last sentence, "if XRP is</p> <p>19 purchased and sold over multiple transactions across</p> <p>20 multiple days (or even different times of the same day),</p> <p>21 an assessment of the relevant purchase and sales must</p> <p>22 account for the price of each transaction with a</p> <p>23 corresponding portion of purchase and sale quantities."</p> <p>24 Do you see that?</p> <p>25 A. Yes.</p>

<p style="text-align: right;">145</p> <p>1 MR. MICHAELSON: Objection. Form. Asked and                  2 answered.                  3 THE WITNESS: Again, as I noted, there are                  4 multiple approaches that can be used.                  5 Q. (By Mr. Spear) But you're not offering an                  6 opinion on any specific one; correct? Or about the                  7 propriety of any specific one; correct?                  8 MR. MICHAELSON: Same objections.                  9 THE WITNESS: I don't know what "propriety"                  10 means in this kind of setting.                  11 Q. (By Mr. Spear) You're not offering an opinion                  12 that one methodology is more appropriate than another                  13 methodology; correct?                  14 MR. MICHAELSON: Same objections.                  15 THE WITNESS: I am stating that there are                  16 multiple approaches that can be used that will give                  17 different answers.                  18 Q. (By Mr. Spear) But you're not saying that one                  19 is more appropriate to be used than another; is that                  20 fair?                  21 MR. MICHAELSON: Same objections.                  22 THE WITNESS: I mean, that, ultimately, will                  23 depend on the -- on the information that becomes                  24 available.                  25 Q. (By Mr. Spear) But that's not an opinion you</p>	<p style="text-align: right;">147</p> <p>1 THE STENOGRAPHER: Okay.                  2 Counsel, before we go off the record, Mr.                  3 Michaelson, would you like to order a copy of today's                  4 transcript?                  5 MR. MICHAELSON: Yes.                  6 THE STENOGRAPHER: Thank you.                  7 THE VIDEOGRAPHER: All right.                  8 The time is 3:25 p.m., and we are going off the                  9 record.                  10 (Whereupon, the videotaped deposition of                  11 MUKARRAM ATTARI, Ph.D., concluded at 3:25 p.m.)                  12                  13                  14                  15                  16                  17                  18                  19                  20                  21                  22                  23                  24                  25</p>
<p style="text-align: right;">146</p> <p>1 are offering now; correct?                  2 MR. MICHAELSON: Same objections.                  3 THE WITNESS: It's -- there are multiple                  4 approaches; that's what I'm saying. Is one better than                  5 the other? No, I'm not saying one is better than the                  6 other.                  7 MR. SPEAR: Fair enough. I am done.                  8 Anyone else have any questions?                  9 MR. MICHAELSON: Can we -- can we just break                  10 for a moment for us to consider redirect? Just be five                  11 minutes.                  12 MR. SPEAR: Sure.                  13 MR. MICHAELSON: Thanks.                  14 THE VIDEOGRAPHER: The time is 3:18 p.m., and                  15 we are going off the record.                  16 (Recess taken from 3:18 p.m. to 3:24 p.m.)                  17 THE VIDEOGRAPHER: The time is 3:24 p.m., and                  18 we are back on the record.                  19 MR. MICHAELSON: So Defendants would like to                  20 designate the entirety of this transcript confidential.                  21 We do not have any redirect or further                  22 questions at this time.                  23 MR. SPEAR: Thank you, all.                  24 Dr. Attari, I really appreciate it.                  25 THE WITNESS: Thank you.</p>	<p style="text-align: right;">148</p> <p>1 I, HEATHER J. BAUTISTA, CSR No. 11600, Certified                  2 Shorthand Reporter, certify:                  3 That the foregoing proceedings were taken before                  4 me at the time and place therein set forth, at which                  5 time the witness declared under penalty of perjury; that                  6 the testimony of the witness and all objections made at                  7 the time of the examination were recorded                  8 stenographically by me and were thereafter transcribed                  9 under my direction and supervision;                  10 That the foregoing is a full, true, and correct                  11 transcript of my shorthand notes so taken and of the                  12 testimony so given;                  13 ( ) Reading and signing was requested/offered.                  14 (XX) Reading and signing was not requested/offered.                  15 ( ) Reading and signing was waived.                  16 I further certify that I am not financially                  17 interested in the action, and I am not a relative or                  18 employee of any attorney of the parties, nor of any of                  19 the parties.                  20 I declare under penalty of perjury under the laws                  21 of California that the foregoing is true and correct.                  22                  23 Dated: March 14, 2023                  24                  25                  _____                  HEATHER J. BAUTISTA, CSR, CRR, RPR, CLR</p>